



Comparative Study of Aeronautical Component Manufacturing Using 3 and 5 Axis Machines

Motivation

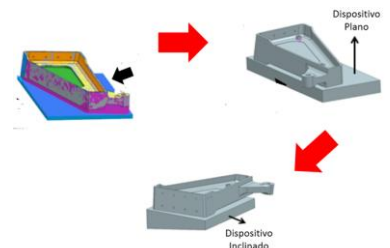
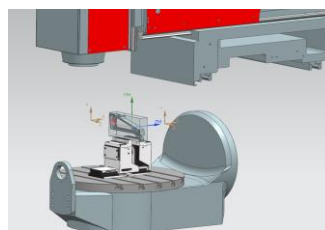
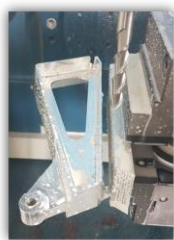
Multi-axis milling centers offer numerous possibilities for implementing cutting strategies and provide lower setup time. However, it is also known that those machines require greater efforts in CAM programming. The 3-axis machines are cheaper, but are less versatile. The choice between the better machine for manufacturing could provide doubts in those equipment purchasing.

Objective

To analyze the differences between 3-axis and 5-axis milling of aeronautical components.

Approach

- Evaluate the requirements for 3 and 5 axis machining implementation;
- Evaluate the difficulty and manufacturing times (modeling, programming, preparation / setup and cutting);
- Use of Quality Function Deployment (QFD) and Analytic Hierarchy Process (AHP) methods to select the machines.



Contact: +55 (12) 3947-6948

Praça Marechal-do-Ar Eduardo Gomes - Vila das Acácias
São José dos Campos - SP, 12228-900

Project Responsible: Prof. Dr. Anderson Vicente Borille